Remarks

The Examiner objected to the previous amendment to the claims filed December 23, 2003, requiring a supplemental paper properly indicating the addition of claims. Due to a clerical error, the Reply and Amendment previously submitted on November 29, 2005 did not include underlined claim language properly indicating the addition of claims. As such, Applicant has submitted the above Supplemental Amendment in accordance with 37 C.F.R. § 1.173(d). Therefore, Applicant respectfully requests the Examiner withdraw the previous objection.

I. Applicant Wishes to Claim Priority to Canadian Application No. 2,310,532

As an additional grounds for reissue, Applicant wishes to add a claim of priority to Canadian Application No. 2,310,532. A certified copy of this application was submitted to the U.S.P.T.O. on September 8, 2004.

II. Applicant Hereby Requests an Interference Between the Current Application and U.S. Patent No. 6,513,585 B2

Pursuant to 37 C.F.R. § 1.607, Applicant respectfully requests that the Examiner declare an interference under 35 U.S.C. § 135 between the present reissue application and U.S. Patent No. 6,513,585 B2 ('the '585 patent"). The following facts are presented to the Examiner in satisfaction of the requirements under 37 C.F.R. § 1.607:

A. Identification of the Patent with Which Interference is Sought

Applicant has copied claims from the '585 patent. Therefore, Applicant submits that the invention claimed in the present reissue application is patentably indistinct from that claimed in the '585 patent. Because the present application claims the same invention as that claimed in the '585 patent, Applicant respectfully submits that interference is proper.

B. The Proposed Counts

Applicant proposes the following counts as defining the subject matter for which interference is sought:

1. *The First Count*

A radiator comprising:

a radiator core defining a front and a rear face thereof and including a plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core; and

a collecting tank attached to said core in a fluid tight manner to provide fluid communication between said tubes and said collecting tank;

said tubes each having a pair of side walls extending through said core and joined by end walls at said front and rear face of said core;

said tubes each terminating at one end thereof in a formed segment wherein said end walls of each tube are bifurcated for a distance from said one end of the tube to define planar portions disposed substantially normal to said side walls and one of said side walls is adapted to contact a side wall of an adjacent tube in the core;

said adapted side wall being joined in a fluid tight manner to said contacted side wall of said adjacent tube;

said collecting tank having walls thereof extending over said front and rear faces of said core past said bifurcation of said end walls in substantial surface to surface with said planar portions and joined in a fluid tight manner to said end walls and said planar portions of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes.

2. <u>*The Second Count*</u>

A method for fabricating a headerless radiator comprising:

fabricating a plurality of tubes, each having a generally rectangular cross section comprised of a pair of spaced side walls joined by a pair of end walls;

adapting one end of each of said tubes to provide a formed segment having said

end walls bifurcated for a distance from said one end to provide planar portions generally normal to said side walls and at least one side wall in said formed segment adapted to contact and seal against a sidewall of an adjacent one of said tubes when said tubes are joined together in an interleaved configuration with layers of fin to form a radiator core;

assembling a radiator core in a manner defining a front and a rear face thereof and including said plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core; said sidewalls of said tubes extending through said core with said end walls at said front and rear faces of said core; and with said adapted side walls in said formed segments of said tubes contacting a sidewall of an adjacent tube in the core;

joining each said adapted side wall in said formed segments in a fluid tight manner to said contacted side wall of said adjacent tube;

attaching a collecting tank having walls thereof extending over said front and rear faces of said core along and beyond said bifurcation of said end walls and in substantial surface to surface contact with said planar portions; and

joining said collecting tank in a fluid tight manner to said end walls and said planar portions of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes.

3. <u>*The Third Count*</u>

A method for fabricating a headerless radiator comprising:

fabricating a plurality of tubes, each having a generally rectangular cross section comprised of a pair of spaced side walls joined by a pair of end walls;

adapting one end of each of said tubes to provide a formed segment having said

end walls bifurcated for a distance from said one end and at least one side wall in said formed segment adapted to contact and seal against a sidewall of an adjacent one of said tubes when said tubes are joined together in an interleaved configuration with layers of fin to form a radiator core;

assembling a radiator core in a manner defining a front and a rear face thereof and including said plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core; said sidewalls of said tubes extending through said core with said end walls at said front and rear faces of said core; and with said adapted side walls in said formed segments of said tubes contacting a sidewall of an adjacent tube in the core;

joining each said adapted side wall in said formed segments in a fluid tight manner to said contacted side wall of said adjacent tube;

attaching a collecting tank having walls thereof extending over said front and rear faces of said core along and beyond said bifurcation of said end walls; and

joining said collecting tank in a fluid tight manner to said end walls of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes;

said step of fabricating said tubes includes forming each of said tubes from a first and second tube half, each of said tube halves including one of said side walls and part of both end walls and further includes forming said tube halves into a generally U-shaped configuration by bending both edges of a flat strip to an angle substantially perpendicular to said flat strip, said edges thereafter comprising said parts of said end walls and said flat strip between said end walls comprising one of said side walls, and further includes bending said edges multiple times to form end walls of folded configuration.

4. *The Fourth Count*

A heat exchanger comprising:

a core having opposite front and rear faces and including a plurality of tubes of generally rectangular cross section with fins interleaved between adjacent tubes intermediate opposite ends of the tubes;

said tubes each having a pair of spaced side walls extending generally between said faces, and spaced end walls joining the side walls of each tube and located generally at said faces;

at least one end of each said tube having the end walls thereat split for a distance from one end extending to an intermediate location along a length of the tube to provide planar portions generally normal to said side walls and separated along the split so that at least one side wall, at said tube one end, contacts a side wall of an adjacent tube and is joined thereto in a fluid tight manner; and

a collecting tank having walls extending over said front and rear faces of said core and in substantial surface-to-surface contact with and joined in a fluid tight manner to said planar portions of said end walls at said tube one end where said end walls are split and extending to and past said intermediate location to thereby form a fluid tight joint between said tank walls and said end walls from said tube one end to and past said intermediate location.

C. Claims From the '585 Patent Corresponding to the Proposed Counts

Applicant submits that claim 1 of the '585 patent corresponds exactly to the first proposed count, claim 8 of the '585 patent corresponds exactly to the second proposed count, claim 16 of the '585 patent corresponds exactly to the third proposed count and claim 19 of the '585 patent corresponds exactly to the fourth proposed count.

D. Applicants Have Presented at Least One Claim that Corresponds to the Proposed Counts

Claim 23 corresponds exactly to the first proposed count, claim 30 corresponds exactly to the second proposed count, claim 36 corresponds exactly to the third proposed count and claim 39 corresponds exactly to the fourth proposed count.

Further, Applicant submits that dependent claims 24-29 shall stand or fall with claim 23, dependent claims 31-35 and 38 shall stand or fall with claim 30 and dependent claim 37 shall stand or fall with claim 36.

E. Application of Terms in the Patent Claims to the Disclosure

The following claim charts correspond particular elements of claims 23, 30, 36 and 39 with exemplary passages within the present disclosure.

1. *Claim 23*

The following claim chart corresponds particular elements of claim 23 with exemplary passages within the present disclosure.

Claim 23	**Exemplary Quotations from Specification of the '495 Patent**
A radiator comprising:	**Col. 2, lines 62-65:** "Heat exchanger 10 is in the form of a radiator for cooling the coolant of an internal combustion engine, such as is typically found in an automotive vehicle."
a radiator core	**Col. 2, line 67:** "Heat exchanger 10 has a core 18. . . ."
defining a front and a rear face thereof	*See* FIG. 3 which illustrates a front and a rear face.
and including a plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core; and	**Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back stacked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located."

a collecting tank attached to said core in a fluid tight manner to provide fluid communication between said tubes and said collecting tank;	**Col. 3, lines 46-60:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20. The U-shaped channels or manifolds 26, 28 are formed from folded or formed aluminum sheet or an aluminum extrusion cut to a desired length and thus have open ends 74. Top end plate 36 closes the open ends 74 at the top of manifolds 26,28 and bottom end plate 40 closes the bottom open ends 74 of manifolds 26,28."
said tubes each having a pair of side walls extending through said core and joined by end walls at said front and rear face of said core;	**Col. 3, lines 26-32:** "Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
said tubes each terminating at one end thereof in a formed segment wherein said end walls of each tube are bifurcated for a distance from said one end of the tube	**Col. 3, lines 33-38:** "As seen best in FIGS. 3 and 8, plates 44, 46 have offset end flanges 56, 58. The respective end flanges 56, 58 at each end of each plate pair 20 diverge from a root area 60 where the raised peripheral edge portions 50, 52 are still joined together, to transverse distal edge portions or flange extensions 62."
to define planar portions disposed substantially normal to said side walls and	**Col. 3, lines 34-40:** "The respective end flanges 56, 58 at each end of each plate pair 20 diverge from a root area 60 where the raised peripheral edge portions 50, 52 are still joined together, to transverse distal edge portions or flange extensions 62. The offset end flanges 58 also have lateral edge portions 64 that extend from root areas 60 to transverse distal edge portions 62."
one of said side walls is adapted to contact a side wall of an adjacent tube in the core;	**Col. 3, lines 40-42:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back stacked plate pairs 20."

said adapted side wall being joined in a fluid tight manner to said contacted side wall of said adjacent tube;	**Col. 6, line 64 to Col. 7, line 2:** "The plates are then arranged into plate pairs with the offset end flanges 58 diverging or extending in a direction away from peripheral edge portions 50, 52. The peripheral edge portions 50, 52 are thus engaged or in contact. The plate pairs are then stacked together in any desired number." **Col. 7, lines 13-15:** ". . . the entire assembly is then placed into a brazing furnace to braze the components together and complete the heat exchanger." **Col. 3, lines 53-55:** ". . . a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."
said collecting tank having walls thereof extending over said front and rear faces of said core past said bifurcation of said end walls in substantial surface to surface with said planar portions and	*See* FIG. 3, showing a collecting tank having walls thereof extending over the front and rear faces of the core past the bifurcation of the end walls in substantial surface to surface with the planar portions. *See* FIG. 8, where the dotted line indicates the inner vertical edges of the collecting tank side walls.
joined in a fluid tight manner to said end walls and said planar portions of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes.	**Col. 3, lines 46-55:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."

2. *Claim 30*

The following claim chart corresponds particular elements of claim 30 with exemplary passages within the present disclosure.

Claim 30	Exemplary Quotations from Specification of the '495 Patent
A method for fabricating a headerless radiator comprising:	**Col. 2, lines 62-65:** "Heat exchanger 10 is in the form of a radiator for cooling the coolant of an internal combustion engine, such as is typically found in an automotive vehicle."
fabricating a plurality of tubes, each having a generally rectangular cross section comprised of a pair of spaced side walls joined by a pair of end walls;	**Col. 3, lines 25-32:** "Referring next to FIGS. 3 and 8, plate pairs 20 are formed of top and bottom mating plates 44, 46. Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
adapting one end of each of said tubes to provide a formed segment having said end walls bifurcated for a distance from said one end to provide planar portions generally normal to said side walls and	**Col. 3, lines 33-40:** "As seen best in FIGS. 3 and 8, plates 44, 46 have offset end flanges 56, 58. The respective end flanges 56, 58 at each end of each plate pair 20 diverge from a root area 60 where the raised peripheral edge portions 50, 52 are still joined together, to transverse distal edge portions or flange extensions 62. The offset end flanges 58 also have lateral edge portions 64 that extend from root areas 60 to transverse distal edge portions 62."
at least one side wall in said formed segment adapted to contact and seal against a sidewall of an adjacent one of said tubes when said tubes are joined together in an interleaved configuration with layers of fin to form a radiator core;	**Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 40-44:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back stacked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located." **Col. 3, lines 54-55:** "...fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."

assembling a radiator core in a manner defining a front and a rear face thereof and including said plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core;	*See* FIG. 3 which illustrates a front and a rear face. **Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back staked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located." **Col. 6, line 67 to Col. 7, line 3:** "The peripheral edge portions 50, 52 are thus engaged or in contact. The plate pairs are then stacked together in any desired number. Cooling fins 22 are located between the plate pairs during the stacking process."
said sidewalls of said tubes extending through said core with said end walls at said front and rear faces of said core; and	**Col. 3, lines 26-32:** "Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
with said adapted side walls in said formed segments of said tubes contacting a sidewall of an adjacent tube in the core;	**Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back staked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located."
joining each said adapted side wall in said formed segments in a fluid tight manner to said contacted side wall of said adjacent tube;	**Col. 3, lines 53-55:** ". . . a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."

attaching a collecting tank having walls thereof extending over said front and rear faces of said core along and beyond said bifurcation of said end walls and in substantial surface to surface contact with said planar portions; and	**Col. 3, lines 46-60:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20. The U-shaped channels or manifolds 26, 28 are formed from folded or formed aluminum sheet or an aluminum extrusion cut to a desired length and thus have open ends 74. Top end plate 36 closes the open ends 74 at the top of manifolds 26,28 and bottom end plate 40 closes the bottom open ends 74 of manifolds 26,28." **Col. 7, lines 6-8:** ". . . the U-shaped channels are then pressed, slid or clipped onto the ends of the stacked plate pairs enclosing the offset end flanges 58."
joining said collecting tank in a fluid tight manner to said end walls and said planar portions of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes.	**Col. 3, lines 46-55:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."

3. *Claim 36*

The following claim chart corresponds particular elements of claim 36 with exemplary passages within the present disclosure.

Claim 36	**Exemplary Quotations from Specification of the '495 Patent**
A method for fabricating a headerless radiator comprising:	**Col. 2, lines 62-65:** "Heat exchanger 10 is in the form of a radiator for cooling the coolant of an internal combustion engine, such as is typically found in an automotive vehicle."

fabricating a plurality of tubes, each having a generally rectangular cross section comprised of a pair of spaced side walls joined by a pair of end walls;	**Col. 3, lines 25-32:** "Referring next to FIGS. 3 and 8, plate pairs 20 are formed of top and bottom mating plates 44, 46. Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
adapting one end of each of said tubes to provide a formed segment having said end walls bifurcated for a distance from said one end and	**Col. 3, lines 33-40:** "As seen best in FIGS. 3 and 8, plates 44, 46 have offset end flanges 56, 58. The respective end flanges 56, 58 at each end of each plate pair 20 diverge from a root area 60 where the raised peripheral edge portions 50, 52 are still joined together, to transverse distal edge portions or flange extensions 62. The offset end flanges 58 also have lateral edge portions 64 that extend from root areas 60 to transverse distal edge portions 62."
at least one side wall in said formed segment adapted to contact and seal against a sidewall of an adjacent one of said tubes when said tubes are joined together in an interleaved configuration with layers of fin to form a radiator core;	**Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 40-44:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back stacked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located." **Col. 3, lines 54-55:** "...fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."
assembling a radiator core in a manner defining a front and a rear face thereof and including said plurality of generally rectangular shaped tubes interleaved with layers of fins for passage of air through said core;	*See* FIG. 3 which illustrates a front and a rear face. **Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back staked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located." **Col. 6, line 67 to Col. 7, line 3:** "The peripheral edge portions 50, 52 are thus engaged or in contact. The plate pairs are then stacked together in any desired number. Cooling fins 22 are located between the plate pairs during the stacking process."

said sidewalls of said tubes extending through said core with said end walls at said front and rear faces of said core; and	**Col. 3, lines 26-32:** "Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
with said adapted side walls in said formed segments of said tubes contacting a sidewall of an adjacent tube in the core;	**Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back staked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located."
joining each said adapted side wall in said formed segments in a fluid tight manner to said contacted side wall of said adjacent tube;	**Col. 3, lines 53-55:** ". . . a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."
attaching a collecting tank having walls thereof extending over said front and rear faces of said core along and beyond said bifurcation of said end walls; and	**Col. 3, lines 46-60:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20. The U-shaped channels or manifolds 26, 28 are formed from folded or formed aluminum sheet or an aluminum extrusion cut to a desired length and thus have open ends 74. Top end plate 36 closes the open ends 74 at the top of manifolds 26,28 and bottom end plate 40 closes the bottom open ends 74 of manifolds 26,28." **Col. 7, lines 6-8:** ". . . the U-shaped channels are then pressed, slid or clipped onto the ends of the stacked plate pairs enclosing the offset end flanges 58."

joining said collecting tank in a fluid tight manner to said end walls of said tubes along and beyond said bifurcation to thereby form a fluid tight joint between said walls of said collecting tank and said end walls of said tubes;	**Col. 3, lines 46-55:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20." *See* FIG. 8, where the dotted line indicates the inner vertical edges of the collecting tank side walls.
said step of fabricating said tubes includes forming each of said tubes from a first and second tube half, each of said tube halves including one of said side walls and part of both end walls and further includes forming said tube halves into a generally U-shaped configuration by bending both edges of a flat strip to an angle substantially perpendicular to said flat strip, said edges thereafter comprising said parts of said end walls and said flat strip between said end walls comprising one of said side walls, and further includes bending said edges multiple times to form end walls of folded configuration.	*See* FIGS. 2 and 3, showing tubes formed from first and second tube halves, each of the tube halves including a side wall and a part of both end walls. The tubes are formed into a generally U-shaped configuration by bending both edges of a flat strip to an angle substantially perpendicular to the flat strip, the edges thereafter comprising the parts of the end walls and the flat strip between the end walls comprising one of the side walls. FIG. 3 also shows bending the edges multiple times to form end walls of a folded configuration.

4. *Claim 39*

The following claim chart corresponds particular elements of claim 39 with exemplary passages within the present disclosure.

Claim 39	Exemplary Quotations from Specification of the '495 Patent
A heat exchanger comprising:	**Col. 2, lines 62-65:** "Heat exchanger 10 is in the form of a radiator for cooling the coolant of an internal combustion engine, such as is typically found in an automotive vehicle."
a core having opposite front and rear faces and including a plurality of tubes of generally rectangular cross section with fins interleaved between adjacent tubes intermediate opposite ends of the tubes;	**Col. 2, line 67 to Col. 3, line 2:** "Heat exchanger 10 has a core 18 formed of a plurality of spaced-apart plate pairs 20 with cooling fins 22 located therebetween." **Col. 3, lines 41-45:** "It will be noted that transverse distal edge portions or flange extensions 62 are joined together in back-to-back staked plate pairs 20. This spaces the plate pairs 20 apart to provide transverse flow passages 66 between the plate pairs where cooling fins 22 are located."
said tubes each having a pair of spaced side walls extending generally between said faces, and spaced end walls joining the side walls of each tube and located generally at said faces;	**Col. 3, lines 26-32:** "Each plate 44, 46 has a central planar portion 48 and raised peripheral edge portions 50, 52, so that when the plates 44, 46 are put together face-to-face, the peripheral edge portions 50, 52 are joined together and the planar central portions 48 are spaced apart to define a flow channel 54 (see FIG. 8) between the plates."
at least one end of each said tube having the end walls thereat split for a distance from one end extending to an intermediate location along a length of the tube to provide planar portions generally normal to said side walls and separated along the split so that at least one side wall, at said tube one end,	**Col. 3, lines 33-40:** "As seen best in FIGS. 3 and 8, plates 44, 46 have offset end flanges 56, 58. The respective end flanges 56, 58 at each end of each plate pair 20 diverge from a root area 60 where the raised peripheral edge portions 50, 52 are still joined together, to transverse distal edge portions or flange extensions 62. The offset end flanges 58 also have lateral edge portions 64 that extend from root areas 60 to transverse distal edge portions 62."

contacts a side wall of an adjacent tube and is joined thereto in a fluid tight manner; and	**Col. 6, line 64 to Col. 7, line 2:** "The plates are then arranged into plate pairs with the offset end flanges 58 diverging or extending in a direction away from peripheral edge portions 50, 52. The peripheral edge portions 50, 52 are thus engaged or in contact. The plate pairs are then stacked together in any desired number." **Col. 7, lines 13-15:** ". . . the entire assembly is then placed into a brazing furnace to braze the components together and complete the heat exchanger." **Col. 3, lines 53-55:** ". . . a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20."

a collecting tank having walls extending over said front and rear faces of said core and in substantial surface-to-surface contact with and joined in a fluid tight manner to said planar portions of said end walls at said tube one end where said end walls are split and extending to and past said intermediate location	**Col. 3, lines 46-60:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20. The U-shaped channels or manifolds 26, 28 are formed from folded or formed aluminum sheet or an aluminum extrusion cut to a desired length and thus have open ends 74. Top end plate 36 closes the open ends 74 at the top of manifolds 26,28 and bottom end plate 40 closes the bottom open ends 74 of manifolds 26,28." **Col. 6, line 64 to Col. 7, line 2:** "The plates are then arranged into plate pairs with the offset end flanges 58 diverging or extending in a direction away from peripheral edge portions 50, 52. The peripheral edge portions 50, 52 are thus engaged or in contact. The plate pairs are then stacked together in any desired number." **Col. 7, lines 6-8:** ". . . the U-shaped channels are then pressed, slid or clipped onto the ends of the stacked plate pairs enclosing the offset end flanges 58." **Col. 7, lines 13-15:** ". . . the entire assembly is then placed into a brazing furnace to braze the components together and complete the heat exchanger." *See* FIG. 8, where the dotted line indicates the inner vertical edges of the collecting tank side walls.

to thereby form a fluid tight joint between said tank walls and said end walls from said tube one end to and past said intermediate location.	**Col. 3, lines 46-60:** "Manifolds 26, 28 are formed of opposed, U-shaped channels having rear walls spaced from the plate offset end flanges 56, 58, and side walls 70, 72 joined to the flange lateral edge portions 64. The channel side walls 70, 72 actually cover the root areas 60 where the peripheral flanges 50,52 are still joined together, and since the lateral edge portions 64 of offset end flanges 56, 58 are joined to the inside walls of channel side walls 70, 72, a fluid tight seal is provided, so that fluid inside manifolds 26, 28 can only flow through the flow channels 54 inside plate pairs 20. The U-shaped channels or manifolds 26, 28 are formed from folded or formed aluminum sheet or an aluminum extrusion cut to a desired length and thus have open ends 74. Top end plate 36 closes the open ends 74 at the top of manifolds 26,28 and bottom end plate 40 closes the bottom open ends 74 of manifolds 26,28."

Applicant has pointed to various aspects of the disclosure to demonstrate support for claims 23, 30, 36 and 39 in accordance with 37 C.F.R. § 1.607(a)(5). Applicant has not intended for this chart to be all-inclusive and respectfully submits that there may be additional subject matter within the present disclosure that also adequately supports claims 23, 30, 36 and 39.

F. The Requirement Under 35 U.S.C. § 135(b) Has Been Met

Applicant presented claims 23, 30, 36 and 39 in a preliminary amendment filed with the present application on December 23, 2003. The '585 patent issued on February 4, 2003. Thus, Applicant respectfully submits that the requirement under 35 U.S.C. § 135(b) that the claims be pending within one year of the issuance of the patent with which an interference is sought has been met.

G. No Statement Under 37 C.F.R. § 1.608 is Required

Applicant filed the application that matured into the '495 patent on October 10, 2000. The present application claims priority to that application. Thus, the effective filing date of the present application is October 10, 2000. The filing date of the application that matured into the '585 patent was March 29, 2001, over five months after the effective filing date of the present application.

Applicant believes that no statement under 37 C.F.R. § 1.608 is required in this situation because, by virtue of Applicant's earlier filing date, Applicant is entitled to judgment as against the owner of the '585 patent.

III. Applicant Respectfully Requests that the Examiner Declare an Interference

As Applicant has met the requirements under 37 C.F.R. § 1.607(a) for provoking an interference, Applicant respectfully requests that the Examiner declare an interference with the '585 patent.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Moreover, Applicants respectfully request that the Examiner declare an interference between the present application and the '585 patent. Applicants believe that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance, and therefore, interference is proper. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and declaration of an interference is respectfully requested.

Respectfully submitted,

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Date: November 30, 2005

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